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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,006	06/19/2003	Andrew B. Arata	16200.0006U4	6057
23859	7590	04/28/2006	EXAMINER	
NEEDLE & ROSENBERG, P.C. SUITE 1000 999 PEACHTREE STREET ATLANTA, GA 30309-3915			PAK, JOHN D	
			ART UNIT	PAPER NUMBER
			1616	

DATE MAILED: 04/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/600,006

Applicant(s)

ARATA, ANDREW B.

Examiner

JOHN PAK

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30,36 and 37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30,36 and 37 is/are rejected..
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claims 30, 36 and 37 are pending in this application.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 37 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

New claim 37 requires "the concentration of the complex exceeds 0.05% by volume." This feature lacks adequate descriptive support from the originally filed disclosure.

Applicant's originally filed disclosure with respect to "a complex having the formula Ag^+CA^- " is as follows (specification pp. 21-22):

Nuclear magnetic resonance tests (1H NMR) were performed on the silver citrate formed in accordance with the above process and a blank citric acid sample. The samples showed an
20 overwhelming excess of citric acid, with little or no other anions present. It is postulated the Ag must be in the form of the cation Ag^+ complexed with the citric acid. It is theorized the empty 5s orbital of Ag^+ overlaps with the delocalized π bond on one of the carboxyl groups of citric

acid. The citric acid anion is the counterion for this complex ion $(Ag(CA)_x)^+$ i.e. $(CA)^-$. CA is citric acid or is $(C_6H_8O_7 - H_2O)$. Another possibility is a zwitterion, where the negative charge is on the complex itself, $(Ag+CA)^-$ where the total charge of the complex is neutral. Either or both of these species may exist in the silver citrate formed in accordance with the above process.

- 5 Multiple complexation to Ag^+ is also possible.

Also, the original claims 4-5 (similar claims 24-25 and 34-35 are noted).

4. An aqueous disinfectant as set forth in claim 1, wherein the electrolytically generated silver forms a complex with the citric acid of $(Ag(CA)_x)^+ (CA)^-$, wherein CA is $(C_6H_8O_7 - H_2O)$.
5. An aqueous disinfectant as set forth in claim 1, wherein the electrolytically generated silver forms a complex with the citric acid of $(Ag+CA)^-$, wherein CA is $(C_6H_8O_7 - H_2O)$.

This is the extent of applicant's originally filed disclosure pertaining to "a complex having the formula Ag^+CA^- ." Applicant "postulated" that the complex must be in the form of Ag^+ complexed with the citric acid. Applicant theorized that the complex can be $(Ag(CA)_x)^+ (CA)^-$ or "[a]nother possibility is a zwitterion, where the negative charge is on the complex itself, $(Ag+CA)^-$ where the total charge of the complex is neutral." Applicant also admitted that either or both of these complexes may exist and "[m]ultiple complexation to Ag^+ is also possible." See above for exact specification source.

Clearly, such a disclosure says nothing about how much of the inventive silver citrate is actually in the aqueous solution. It actually shows some confusion on the part of the inventor, because " $(\text{Ag}(\text{CA})_x + (\text{CA}))$ " doesn't make any sense, and applicant admits to multiple complexation.

Therefore, the originally filed disclosure fails to reasonably convey to the skilled artisan that the silver citrate in the invention aqueous solution comprises a complex having the formula Ag^+CA^- at a concentration that exceeds "0.05% by volume." All that applicant has descriptive support for is the feature that such a complex species may be present. Applicant does not have sufficient descriptive support for greater than "0.05% by volume" concentration of such a complex species.

New claim 37 is thereby rejected under 35 USC 112, first paragraph.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 30 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Srivastava et al.

Srivastava et al. explicitly disclose a 0.5% solution of silver citrate in water (page 209, right column). Table I discloses antibacterial activity (page 211).

Applicant's amended independent claim 30 and new claim 36 are noted. Applicant's arguments relative hereto, filed on 2/13/2006, have been given due consideration but were found unpersuasive.

Applicant argues that the prior art silver citrate is disclosed to be $\text{Ag}_3\text{Citrate}$, so Srivastava's silver citrate must also be such a species. Applicant argues that the Examiner has provided no evidence that Srivastava's silver citrate contains only one Ag^+ cation per citrate anion.

Applicant is quite mistaken. Srivastava et al. explicitly disclose 0.5% silver citrate aqueous solution (page 209, right column). Applicant's specification discloses that only 285 ppm of typical prior art silver citrate is soluble in water (page 21, line 15). Srivastava's 0.5% silver citrate solution is about 17.5 times more concentrated than that. Hence, this is sufficient evidence that the silver citrate in Srivastava's aqueous solution cannot all be $\text{Ag}_3\text{Citrate}$.

As for applicant's claimed complex, Ag^+CA^- , being present in Srivastava's aqueous solution, it is the Examiner's position that such a species must necessarily be present in said aqueous solution because of the dynamics of multiple species in equilibrium and the fact that the solubility of Srivastava's silver citrate is higher than $\text{Ag}_3\text{Citrate}$, as is the case for applicant's silver citrate.

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As for the presence of citric acid, the Examiner maintains that the present claim language requires no more than that which would be present in equilibrium between silver and citrate, forming citric acid species in equilibrium with all the other species, as mentioned by applicant on specification page 22, line 5.

For these reasons, the rejection must be maintained.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 30 and 36 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6,197,814. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the reasons fully set forth in the Office action of 8/12/2005, page 7.

Applicant argues that the patented claims are patentably distinct from the instant claims. The Examiner does not understand such an argument. The patented claims are directed to an aqueous solution of silver citrate and citric acid produced by an electrolytic process and the same complex is disclosed (patented claim 7). The Examiner has examined in this application claims directed to electrolytically generated silver citrate and claims directed to silver citrate sans electrolytic recitation. Hence, based on this record, the patentable distinctness argument is erroneous.

Claims 30 and 36 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5, 8 of copending Application No. 10/434,742. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the reasons fully set forth in the Office action of 8/12/2005, page 8.

Applicant acknowledges but does not traverse this ground of rejection. It is so noted for the record. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 30 and 36 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/846,221. Although the conflicting claims are not identical, they are

not patentably distinct from each other because of the reasons fully set forth in the Office action of 8/12/2005, page 9.

Applicant acknowledges but does not traverse this ground of rejection. It is so noted for the record. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 30 and 36 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 11/060,013. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the reasons fully set forth in the Office action of 8/12/2005, page 10.

Applicant acknowledges but does not traverse this ground of rejection. It is so noted for the record. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to **JOHN PAK** whose telephone number is **(571)272-0620**. The Examiner can normally be reached on Monday to Friday from 8 AM to 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's SPE, **Sreeni Padmanabhan**, can be reached on **(571)272-0629**.

The fax phone number for the organization where this application or proceeding is assigned is **(571)273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is **(571)272-1600**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'John Pak', is positioned above the printed name and title.

JOHN PAK
PRIMARY EXAMINER
GROUP 1600